

**EXAMINER'S AMENDMENT**

- 1) The response filed on June 23, 2009, has been entered and has overcome all rejections of record.
- 2) Claims 1 and 2 are pending and are allowed.
- 3) An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone message from B. J. Sadoff on Oct. 2, 2009.

The application has been amended as follows:

Please amend the title as follows:

METHOD OF PRODUCING TRANSGENIC PLANTS WITH INCREASED YIELD,  
COMPRISING EXPRESSING OF HAEMOGLOBIN OF ARABIDOPSIS

IN THE CLAIMS:

1. (Currently Amended) Method for producing plants with at least one altered plant characteristic selected from increased yield, increased biomass, altered architecture and altered cell division of the plant compared to a control plant, said method comprising increasing expression in plants of a nucleic acid sequence encoding plant class-2 non-symbiotic haemoglobin by transforming said plants with a nucleic acid sequence encoding plant class-2 non-symbiotic haemoglobin to produce [[a]] transformed plants, said nucleic acid sequence being SEQ ID NO:3 or a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:4, wherein the plant characteristic is selected from one or more of increased yield, increased biomass, altered architecture or altered cell division ~~is altered~~, and selecting from the transformed plants those transformed plants which have at least one of said ~~altered plants~~ characteristics.

***Allowable Subject Matter***

4) Claims 1 and 2 are allowed.

#### **REASONS FOR ALLOWANCE**

- 5) The following is an examiner's statement of reasons for allowance: The Applicant's arguments in the response filed on June 23, 2009, were persuasive. Given the teachings of Bulow et al (TIBTECH (1999) Vol. 17, pp. 21-24), one of ordinary skill in the art would not have expected a class-2 non-symbiotic haemoglobin from a plant, such as from *Arabidopsis*, to be effective for producing the claimed phenotypes. Bulow et al clearly teach that using a microbial haemoglobin, such as the haemoglobin from *Vitroscilla*, is the preferred method for generating the phenotypes of faster germination, higher growth rates, and modified formation of secondary metabolites; and Bulow et al expressly teach away from using a plant haemoglobin.
  
- 6) Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
  
- 7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to CATHY K. WORLEY whose telephone number is

(571)272-8784. The examiner can normally be reached on M-F 10:00 - 4:00, with additional variable hours before 10:00 and after 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cathy K. Worley/  
Primary Examiner, Art Unit 1638